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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/514,312	02/28/2000	Takahide Kasai	31671-157328RK	8281
26694	7590	03/07/2006	EXAMINER	
VENABLE LLP			AHMED, HASAN SYED	
P.O. BOX 34385			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20045-9998			1615	

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/514,312

Applicant(s)

KASAI ET AL.

Examiner

Hasan S. Ahmed

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 45-51, 62, 63 and 70-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45-51, 62, 63 and 70-72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Receipt of Applicant's amendment, filed on 13 December 2005, is acknowledged

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 45-51, 62, and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the phrase "cell residue of yeast" renders the claims indefinite because it is not clear which particular residue or residues of the yeast cell are being referred to.

Moreover, the phrase "yeast cell wall fractions" renders the claims indefinite because the properties of the fractions being claimed have not been delineated.

Finally, the phrase "treated with enzymes" renders the claims indefinite because it is not clear what enzymes are claimed in the process of the invention.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45-51, 62, 63, and 70-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shank (US 4,001,480) in view of Jamas, et. al. (US 4,962,094).

Shank provides a product, such as a drug, condiment or vitamin, encapsulated within biological capsules provided by microorganisms, such as yeast (col. 1, line 46 – col. 2, line 51). Shank teaches that the yeast cell wall may be softened by treatment with proteolytic enzymes, and then hardened with dilute aldehydes (col. 5, lines 28-50). In the examples provided, Shank teaches that the encapsulated material is cast upon an acidified paper (see examples I-V).

Shank does not include a plasticizer in the composition of the invention. However, the Jamas reference does include a plasticizer.

Jamas, et. al. provide a composition and method of utilizing glucan as a dietary additive (see abstract). According to the reference, “[w]hole glucan can be treated with an acid, such as acetic acid, after its extraction from yeast to reduce the degree of  $\beta(1-6)$  crosslinking, thereby increasing the water holding capacity of the whole glucan.” (col. 4, lines 31-35).

Jamas, et. al. teach that the dietary additive of the invention can be administered orally. The glucan can be administered alone or with other ingredients. The compositions of the invention can be in the form of a tablet or powder, and include additives for coating, such as a plasticizer (col 5, lines 27-63; col 6, line 18).

Thus, it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the invention to combine the compositions and methods disclosed by Shank (particularly use of proteolytic enzymes), with the composition taught by Jamas, et. al (particularly use of an acid, and use of a plasticizer for oral administration in tablet form.) The expected result would be more effective softening of the yeast cell wall.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hasan S. Ahmed whose telephone number is 571-272-4792. The examiner can normally be reached on 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

THURMAN K. PAGE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600